

Gummy Bear Lab

Name: _____ Date: _____

Chair Role: _____ Class: _____

Question: What do you think will happen to a gummy bear when you put it in water over night?

Hypothesis: _____

Part A: One Day 1, your teacher will give you a gummy bear at random. Use the equipment available to measure your gummy bear and record the data in the chart for Day 1. Also, sketch your gummy bear in the box on the second page.

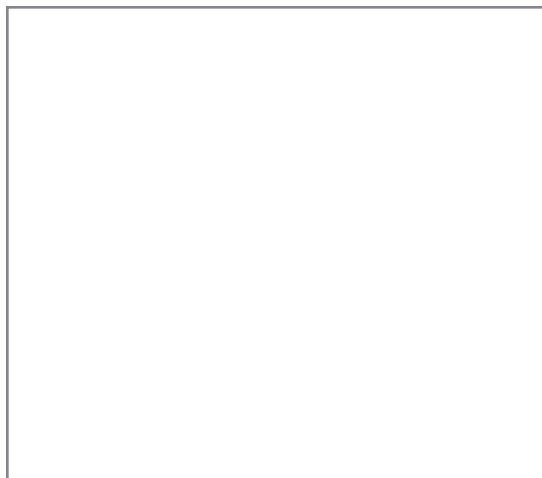
Measurements:

- The length of your gummy bear should be measured from the top of its head to the bottom of its feet to the nearest tenth of a centimeter.
- Measure the width at the widest point across the back of the bear to the nearest tenth of a centimeter.
- Measure the thickness from the front to the back at the thickest point to the nearest tenth of a centimeter.
- Calculate the volume by multiplying the length, width, and thickness. Round to the nearest hundredth.
- Measure the mass using a triple-beam balance or other scale to the nearest tenth of a gram.
- Calculate the density by dividing the mass by the volume. Round answer to the nearest hundredth.

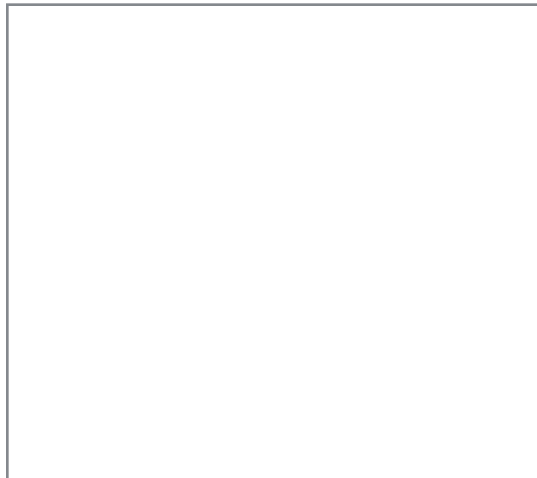
Day	Bear Color	Length	Width	Thickness	Volume	Mass	Density
1							
2							
Amount of Change							

Part B: On Day 2, remove the gummy bear from the cup of water and use a towel to dry it off to prevent it from dripping all over the place. Sketch the gummy bear in the box on the second page. Repeat the measurements from Part A and record your data in the correct portion of the chart. Determine the amount of change for each measurement and record in the chart.

Day 1 Sketch



Day 2 Sketch



Analyze and Conclude:

1. Was your hypothesis correct? Show evidence to explain. _____

2. Which change is greater - volume or mass? Show evidence to explain. _____

3. Was there a change in density? If so, what caused the change? _____

4. How do your results compare to those of your classmates? _____

5. What are the dependent and independent variables? _____

6. What could you change in this experiment to add a Control and Experimental group in this lab? _____

Teacher Notes:

This lab worksheet was created based on a gummy bear lab I found on the internet; however, the website with the original lab is no longer available. I use the lab during my Metric Mania unit when we are studying volume and mass. I did find another gummy bear lab that explores diffusion with gummy bears and describes the lab in terms of polymers. Go to http://www.psrc.usm.edu/macrog/proposal/dreyfus/outcome/gelatin_bearlab.html to view this lab and get ideas for extension lessons.

Materials - Each student will need:

- 1 gummy bear (may want extra for the students to eat after they have completed the lab)
- 1 small cup of water (4 oz.)
- Measuring tools - metric ruler and scale
- Calculator (optional)
- 1 worksheet

NOTE: I have had good luck with Brachs brand of gummy bears, but be sure to test your gummy bears before trying the lab with your students. Some gummy bears do not absorb water well as others. If you find some that don't work for the lab, save them for treats after the lab!

Extra time?

Challenge your students to create an experiment with gummy bears. My students have asked if they will "grow" larger if left for another day. Others wondered if the temperature of the water had an effect on the rate of absorption. Some students wanted to experiment with colored water and other liquids to see what would happen to the gummy bears. Buy some extra and experiment!